init iative

Company newsletter of init AG, Karlsruhe for customers, business partners, investors, employees and friends

2/2009

Rotterdam gets INIT technology.

ITS for the Netherlands' second largest city.

Technology and systems from INIT are more in demand than ever throughout the world. Further significant proof of this came in the form of an order from RET, the transport company of Rotterdam. RET commissioned INIT to implement an overall ITS solution based on the Intermodal Transport Control System **MOBILE-ITCS** that is to control nearly 400 vehicles (129 trams, 226 buses and 41 service vehicles). The project is now the third contract for INIT from the Netherlands, following the work done with the public transportation services in The Hague and the private transportation company Syntus. As their ambitious goal, RET and INIT aim to have all the vehicles within RET provided with INIT technology by the end of 2009.

Continued on page 6

Index

Editorial

Dear Transportation Professional,

Satisfying customers is the basis of every company's success. That is why we are very happy to see that our customers look on us as long-term partners and are opting for us in new projects as well. This has been shown with the new contracts we have secured with the transport companies of Nuremberg, Oslo and The Hague. What encourages us just as much are new customers giving us the opportunity to benefit them with our expertise just as the transport companies in San Francisco and Rotterdam have done.

> **Dr. Jürgen Greschner,** Chief Sales Officer

Ongoing support and knowledge transfer are the goals of INIT's User Group Meetings. The next International User Group Meeting will take place in Chesapeake, Virginia in October. INIT's US subsidiary INIT Inc. will be hosting this event, which will also be a celebration of its 10th anniversary. Since its foundation we have developed a strong and enduring position within the North American public transport industry and have now successfully established business with more than 25 customers in North America.

This success has inspired us to further follow our ideas and vision for the public transport of tomorrow. As it clearly shows, we can achieve a lot with our know-how and commitment to public transport not only in the USA, the land of opportunity, but worldwide.

Please enjoy reading the latest newsletter!

Jürgen Greschner

Everything in view with INIT vehicle equipment.

Large-size display and electronic rear view mirror give drivers peace of mind whilst increasing safety.

> **The large colour display of TOUCHmon** allows to present information clearly structured.

The large-size touch screen of the mobile data terminal **TOUCHmon** offers drivers of buses and trams an easy-to-view, comfortable and robust control panel. Thanks to the fully graphic-capable touch screen, information can be displayed clearly and additional functions can be realised at any time.

Further security and ease is also guaranteed, for example by the built-in amplifier that transmits navigation announcements clearly and distinctly. The **TOUCHmon** allows the driver comfortable operation at all times as the backlight automatically adapts to the surrounding lighting conditions. In addition, the SAW (Surface Acoustic Wave) touch panel neutralises the effects of scratches and dirt on the touch screen and thus avoids operating errors.

A special highlight of the **TOUCHmon** is that it features an input for an analogue camera which can thus be directly connected to the control panel. As a result the camera delivers jitter-free live pictures, which is important when used as a reviewing camera to offer the driver a better overview and safety when reversing the vehicle. The switch to the camera is controlled by the on-board computer and is activated when the reverse gear is engaged, for example. Of course, digital pictures generated by the on-board computer can also be displayed on the high-quality display panel. The large display measuring 8.4" (21 cm) comes in handy when the driver is performing monitoring functions.

> **A big plus for safety:** jitter-free pictures from a rear view camera.

Whether manoeuvring in the depot or out on the road, reversing a bus always presents a particular challenge. To facilitate the driver's job while increasing the safety of passengers and general traffic at the same time, many companies' preferred solution today is to equip their vehicles with high-performance rear-view cameras.

The analogue rear-view camera **REARview** is the ideal addition to the driver terminal **TOUCHmon**. Thanks to the waterproof and robust casing, the **REARview** fulfills all requirements for a device mounted outdoors and is suitable for placing on all different kinds of surfaces — whether curved or flat — including glass. Because of the extra large, 120° viewing angle and excellent performance of the camera, the driver has an unobstructed view at all times when reversing, even in unfavourable light conditions.

Both devices are used in the project with the Roads & Transport Authority (RTA) in Dubai. 1,350 vehicles are being equipped with the driver terminal **TOUCHmon** and 450 vehicles of those with the powerful combination of **TOUCHmon** and **REARview**. They contribute to the drivers' peace of mind, and at the same time increase safety for passengers and road traffic in general.

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Follow-up orders from Oslo and The Hague.
INIT quality persuasive in major European cities.

> **Trafikanten Oslo is constantly extending** the ITS system from INIT.

A company knows it has done a good job when its existing customers keep coming back. For INIT, the public transport authority of Oslo represents one of these satisfied customers. Since 2004, INIT and Trafikanten Oslo have been creating one of Europe's most modern fleet management and RTPI systems in public transport. This first project included implementing an Intermodal Transport Control System, and equipping more than 1,000 vehicles. One of the major goals was to improve Real-Time Passenger Information. Last year, INIT was commissioned with integrating the RTPI system of the subway service and installing 60 LED passenger information displays — **PIDstation** — for Oslo's subway.

Oslo system continually growing.

INIT has now received another follow-up order from Oslo. For Trafikanten Oslo, INIT will equip an additional 222 buses with the vehicle IT platform **COPILOTpc** and the multimedia infotainment display **PIDvisio**. With **PIDvisio**, passengers are kept informed of the next stops and connections along the route.

Buses to follow the tram in The Hague.

Another satisfied customer is HTM (Haagsche Tramweg-Maatschappii), The Hague's transport company. Since 2006, INIT has been equipping about 50 two-way trams — serving the Randstad Rail service — with **COPILOTpc** vehicle IT platforms and the touch screen driver terminals **TOUCHit**. That way, the vehicles are connected to the Intermodal Transport Control System INIT installed at HTM in The Hague. Furthermore, INIT provided the company with the integrated planning and data management system **MOBILE-PLAN** and the personnel assignment software **PERDIS®**. In this way an overall solution has been implemented that makes it easier for HTM to control and optimise their operations and to provide their passengers with real-time information.

Now, HTM has decided to expand the system to more than 150 trams and to the city's bus network. For this purpose, INIT will equip about 145 buses as well as the trams with its sophisticated hardware solution. This clearly shows that HTM is on the way to becoming a satisfied long-standing customer.

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> **The Hague decided to manage** their tram and also their bus services with an INIT System.

Nuremberg on its way into the Digital Age.

Voice and Data Radio in the Intermodal Transport Control System coming soon via TETRA.

> **MOBILE-ITCS allows dispatchers to control** radio communication out of the ITCS.

The Verkehrs AG (VAG) in Nuremberg is internationally known for pioneering innovative solutions. Hence, the particular technology with which it controls operations is of great importance to this company. For years the Intermodal Transport Control System **MOBILE-ITCS** has been supporting dispatchers in the central service control centre manage the bus and tram services. So far, VAG has relied on an analogue, private mobile radio system for communication with the vehicles. Now, VAG is preparing for the future and is going to use digital trunked radio (TETRA) for voice and data communication. TETRA is already in use in the Nuremberg subway system.

Experience makes all the Difference.

In 2005 INIT, in cooperation with their radio partner MOTOROLA, successfully commissioned one of the first TETRA-based fleet management systems in Stockholm. Storstockholms Lokaltrafik (SL) along with several bus operators, control the world's biggest fleet of more than 2,000 buses that are connected via TETRA to the Intermodal Transport Control System **MOBILE-ITCS**.

Now, VAG Nuremberg will also benefit from the experience and know-how of this technological partnership. Their goal is to have the ITCS successfully retrofitted to digital trunked radio technology by 2010, thus marking another milestone in German public transport. In the VAG service area, which includes Greater Nuremberg and the cities of Fürth, Erlangen and Schwabach, more than 400 vehicles will soon be connected to the control centre and the Intermodal Transport Control System via TETRA.

Since 1998 the Nuremberg dispatchers have been working with an INIT control system which was updated to the current **MOBILE-ITCS** in 2005. As in Stockholm, INIT will integrate the radio system completely into the ITCS enabling easy communication with the vehicles through the ITCS interface. With parallel operation of both the old and the new radio systems during the transition period, INIT will ensure a smooth migration to the new radio system.

The next Generation of Vehicle Technology.

In the course of transitioning the control system to TETRA the outdated on-board equipment will also be replaced. With this project 50 trams will be equipped with the IT platform **COPILOTpc** which the drivers can conveniently operate via the touch screen of the driver terminal **TOUCHit**. With the high-resolution colour graphic display the drivers can view information with greater detail and in a better structured form than ever. Thus, VAG can involve their drivers even more in the control of services and be able to utilise the ITCS to its full scope.

> **The better you inform the driver,** the better you can manage your services.

> **The latest vehicle equipment** will be installed in VAG buses.

The new PC-based multi-functional device, **EVENDpc**, will be installed on 350 buses of VAG, and will offer the same advantages. In addition to the ITCS functions, it also controls the whole ticket vending process. The driver uses the 8.4" (21 cm) colour graphic display to sell paper tickets. Furthermore, the **EVENDpc** is equipped with a proximity reader for contactless smart cards and a barcode scanner for coded tickets on paper or mobile phones. With this latest generation of on-board equipment VAG is now well-prepared in terms of ticketing, since **EVENDpc** and the associated back office system **MOBILEvario** are set up for various E-Ticketing Systems, e.g. on basis of the VDV core application.

A so-called "FARM" component (radio application module and computer module) for WLAN and GPRS/UMTS is integrated into the 19" technology of both buses and trams. According to VDV standard 423 the FARM component integrates the on-board systems communication-wise. Like the INIT module **MONAtsp** supports traffic signal priority or the GPS receiver **GPSgo** considerably increases the accuracy of the calculated GPS coordinates due to the integrated gyroscope.

Intelligent Control of Data Upload and Download.

Nuremberg continues to manage timetable and duty planning with INTERPLAN which has also been a subject of INIT (initplan GmbH) since 2008. With the gradual integration into the INIT product line and into **MOBILE-PLAN**, Nuremberg benefits from the synergy effects, because the same tools are now used for providing data to the on-board devices as are for the ITCS.

With the Intelligent Messaging System **MOBILE-IMS**, data are transferred automatically to the vehicles. This system both manages and controls the loading statistics, and selects the appropriate communication channel. For data provision, WLAN networks will be established in the depots. For data download to vehicles that are not parked in depots, and as a backup, GPRS/UMTS data communication is used. **MOBILE-IMS** ensures download via UMTS or GPRS if the primary WLAN channel is not available.

The operational data collected by the vehicle are uploaded to **MOBILEstatistics** for evaluation, the sales data are transferred to **MOBILEvario** and from there via the PT-COM interface to the existing SAP PT® background system. Via the staff ID card, a smart card, the driver transfers the sales data from the **EVENDpc** to the cash-counting device and then feeds the cash into the device. The cash-counting devices are also connected to PT® online so that seamless and secure data and cash flows are guaranteed.

> **The EVENDpc combines** the characteristics of the latest generation of INIT on-board computers with fare collection functionalities.

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INIT popular in the Netherlands.

Rotterdam is the third major NL customer demanding an INIT telematics system.

Continued from page 1

> **Shorter turning times** and greater punctuality with INIT technology in Rotterdam.

Nearly 400 vehicles in Rotterdam will soon be monitored and managed via INIT's **MOBILE-ITCS**. All vehicles will be equipped with the INIT on-board computer **COPILOTpc**, which is based on the standard operating system Windows® XP Embedded and the touch screen driver terminal **TOUCHit**. Further technology includes the ID card reader **IDmobil**, which allows the driver to use a chip card to log in and log out. These devices allow the drivers a more comfortable handling of their day-to-day tasks.

Ideal driver support.

But, RET is doing even more for their drivers: To inform them clearly and comprehensively of their next departures, the TFT-information displays, **PIDscreen** (37") and **PIDvisio** (20"), will be installed in the driver waiting rooms. From here the drivers can conveniently see all necessary information at a glance: trip number, block number, departure time according to the schedule, actual departure time, and activated dispatching measures are displayed. In this way, they will always know when to be ready for duty and which vehicle to take; thus allowing for much shorter turning times and greater punctuality. The interface to the central ITCS, providing the information, will be implemented using a GPRS-based radio data transmission system.

Real-Time Passenger Information Netherlands-wide.

The positioning data transmitted from the vehicles is processed by the central dynamic passenger information system **MOBILE-STOPinfo**. It provides the journey planner for the Dutch travel information system 9292 with real-time information for the Rotterdam area. This information will also be made available for RET's future passenger information system with 1,200 passenger information displays at stops.

About RET.

With a population of some 1,100,000 people, the greater area of Rotterdam is the second largest city region in the Netherlands, as well as being the trading and industrial centre of the country. 600,000 passengers use the local public transportation services of RET every day. Extrapolated over a year, this means RET serves some 185.7 million passengers. The RET network combines public services that comprise 42 bus lines, 9 tram lines, 3 metro lines and public transport over water, which primarily operates in the city centre.

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INIT – Going to San Francisco.

GE Transportation LLC named INIT as subcontractor for the Golden Gate Bridge, Highway and Transportation District project.

General Electric Transportation LLC has been awarded a contract to provide an Advanced Communication and Information System (ACIS) for the Golden Gate Bridge, Highway and Transportation District (District) in San Francisco, CA. INIT has been chosen as the subcontractor for the new Intermodal Transport Control System (ITCS).

In accordance to the contract, INIT will equip Golden Gate Transit buses and the Golden Gate Ferry fleet with an Intermodal Transport Control System, **MOBILE-ITCS**. In addition, INIT will supply the on-board computers, mobile data terminals, passenger information displays, automatic passenger counting system and automated stop announcements, as well as the Real-Time Passenger Information system **MOBILE-STOPinfo**.

COPILOTpc, INIT's on-board computer, is based on Windows® XP Embedded technology and will give the District cost-effective standard software with the advantage of future expandability. The mobile data terminal, **TOUCHmon** will provide drivers with a full 8.4" (21 cm), graphic-capable touch screen with built-in surface acoustic wave technology. Golden Gate Transit and Golden Gate Ferry passengers will also benefit from INIT's real-time passenger information through improved signage, and further real-time data by mobile phone and the Internet using the San Francisco Bay area "511" service. In addition, on-board, clearly audible next-stop announcements and displays will help to identify all stops for passengers.

> **The Golden Gate Bridge is a landmark** that spans the San Francisco Bay.

> **Passengers at transfer stations and ferry stations** will be excellently informed by simply viewing the TFT Passenger Information Display PIDscreen.

INIT will interface the ITCS with a digital voice and data radio system to provide the customer with a fully integrated seamless solution. The multi-million dollar project is now underway and will take about two years for project build-out.

About the Golden Gate Bridge, Highway and Transportation District.

The Golden Gate Bridge, Highway and Transportation District is a public agency based in San Francisco, California. It has three operating divisions: Golden Gate Bridge, Golden Gate Transit and Golden Gate Ferry. The District serves more than 45 million customers annually, using tolls, transit fares and limited operating grants, as well as using revenues from advertising, concessions and leases to fund its services.

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INIT celebrates 10 years of successful business in North America.

International User Group Meeting and Anniversary will take place on October 19 — 20, 2009.

> **INIT, Inc. has experienced constant growth** since its opening in the US. Starting with three employees in 1999, INIT now employs over 50 staff members who are working on improving the future of mobility in North America.

"We are where our customers are" — this is one of our principles. Thus, INIT naturally decided to open an office in North America when the first contracts in the USA were on the horizon. So, in 1999 INIT Innovations in Transportation, Inc. was founded in Chesapeake, Virginia. Since then, many contracts have followed and the INIT team has continued to grow exponentially over the last ten years.

The 10 Year Anniversary will be duly celebrated on October 19 — 20, 2009, with an International User Group Meeting, a Transit Symposium and a Gala Celebration. Moreover, participants of the North American and the European "Working Group ITCS" will convene at this occasion for a joint meeting.

Participating in this event is exciting for European public transport professionals as well. Exchanging experience and technology with their American colleagues will provide them with insights into their experiences with video surveillance, GIS and barrrier-free public transport amongst other things. For further information please refer to the website: **www.initusa.com**.

> **The flag of the state of Virginia** was handed over to Dr. Jürgen Greschner during the Grand Opening of INIT in Virginia in 1999.

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Interesting

Events

7 — 11 June 2009	**"58th UITP World Congress and Mobility & City Transport Exhibition"** in Vienna, Austria
17 — 19 June 2009	**"ATCO Summer Conference"** in Torquay, UK
9 — 11 September 2009	**"Inform Norden"** in Copenhagen, Denmark
21 — 25 September 2009	**"16th ITS World Congress and Exhibition"** in Stockholm, Sweden
19 — 20 October 2009	**"International User Group Meeting – 10 Years of INIT in North America"** in Chesapeake, VA/USA

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